FINDING AND RECOMMENDATION(S)

Submitted by Garry Bowen
Charter Member, International Society of Sustainability Professionals

Principal Author, Northern Nevada Sustainable Design Assessment Team Project
AIA Center for Communities by Design

National Geographic' Center for Sustainable Destinations ('pro forma')

Finding:

"If we lose the forests, global warming wins. . ."

As stated in V-059 (Hicks & Upton), there is an "opportunity to implement forest restoration techniques that can be a model for the rest of the nation" – which was also advocated during the Presidential Summit of 1997, after this writer submitted a white paper under the auspice of both Tahoe Conservation Districts (CA/NV) to then-Vice President Al Gore as Head of the White House Environmental Quality Office. The essential premise was that Tahoe could become a focal point for all that ailed the 'big tree' forests in the West, by focusing on learning what constituted a "restored forest" in a sensitive urban environment, and on refining what was learned for use in any and all of 10 western states. There are "demonstration forests" that work on various scientific categories, but Tahoe could be done in "real-time", all the time, which has not been done. . . That possibility has still not been realized in over a decade, while conditions still worsen, not only in Tahoe, but everywhere.

Background and Supporting Evidence:

Given Lake Tahoe's high aesthetic profile, and highly regarded facilities for gathering appropriate scientific and sociologic indicators, it makes immense sense to use Tahoe's relatively confined environment, relations with its' public, & unique topography towards the betterment of all forest dynamics, especially with its' desired location, proximity to appropriate resources, and urban-alpine setting.

Centrally-located in the Sierras, and a major water source for its' two state domains (65% in CA; 100% in Northern NV), the Tahoe Basin has an arranged & convenient number of watersheds with which to clarify the viability of now-muddled county, state, and

Federal policies, which in turn can be realigned to the immense task at hand, that of facilitating a return to a high degree of well-being for our forests, as the reduction of catastrophic fire remains a paramount need. The wealth of the forest includes an increased awareness of such important forest global functions as absorbing carbon dioxide, providing clean air, water, & healthy habitats, including human. Making Tahoe a focal point will bring heightened attention and awareness to the full range of environmental benefits that forests bring to life forces.

As we increasingly learn from forestry efforts around the world, such well-respected agencies as NASA, NOAA, the European Union, and the United Nations have adopted the following as a paramount awareness of restoring balance in our global systems:

"If we lose the forests, we lose to global warming."

As refined by Sierra Nevada College Professor of International Studies, Ted Morse:

"If we lose the forests, global warming wins !"

Given the high-visibility and intense focal point that is Lake Tahoe, sustainable economic development can prevail as a national and international model of success.

- **Earlier submission to this body of a Federal M.O.U. signed at the Secretary-level between Agriculture, Energy, Interior, and now Defense and the EPA, should be followed closely to marshal the resources to make Lake Tahoe's forests the hallmark of concerted efforts to a high-level of "properly functioning conditions." This term is preferable to the currently-used "desired future conditions", as the focus can then be on optimizing the natural dynamic functions of silviculture, in the interests of renewed and restored forest health.**

As the emphasis of the above-mentioned M.O.U. is about "woody biomass utilization", all facets can and should be explored – including small-diameter wood utilization efforts of the USFS Forest Products Laboratories (Madison, WI & UC Berkeley in Richmond CA), the use of any residue in high-grade compost and soil amendments (Minden, NV), and uses of residue to create fire-resistant building materials

- **Encourage and initiate additional design of facilities using cogeneration (combined heat & power) similar to the one proposed by Placer County at Burton Creek of multiple Megawatts, and continue emphasizing the safe and efficient**

building performance of our own Tahoe Environmental Research Center, Nevada's only Platinum-rated building.

As an example of the above suggestion, there is a Community Center in Nederland, CO (in the hills above Boulder) that exemplifies this type of project as "community building" as well as a 'win-win' for small communities: it now uses 29 kW of wood-fired cogeneration supplanting the original 30 kW, using biomass from the adjacent forested areas.

Emphasizing this direction is consistent with community energy modeling currently active in Europe, using wood-fired approaches as an answer to the dilemmas continually expressed: "deal-breaking" transportation costs, concerns for air and water quality, and the realization of value from a "non-merchantable" resource: using the <u>embodied energy</u> inherent in biomass, to mitigate importation of energy for specific municipal uses, while consolidating viable energy sources through simultaneous catastrophic fire reduction

- **Creating a full range of biomass uses would then be in a position to 'capitalize' on several near-term research initiatives, such as the imminent arrival of a solution to an ongoing current problem, that of more easily converting cellulosic biomass into a highly viable and readily-available energy source.**

  Serious sustainability problems are occurring with *growing* sources for fuel, as it makes high demands on land and water, both unattractive in terms of resource planning. Once optimized, biomass can and will replace corn as a fuel source, and corn can then return to its' place as a <u>food</u> source, eliminating inherent sustainable conflict. Forest biomass does not have to grown as a "crop", with a separate allocations of land (soil), water (imported by pipe or aqueduct) or distribution "harvest", particularly if used in the immediate area.

- **All of the above would be consistent with reducing catastrophic fire danger, a major emphasis of the work of this Commission, by finding uses for the excess that the community can use to offset its' energy needs. It is axiomatic that a healthy forest withstands fire better, while also negating the idea that beetles are "attacking" trees: beetles infest trees as a natural byproduct of imbalanced conditions, such as those that exist in a number of Regions. Unhealthy forests encourage their natural growth (infestation); healthy trees diminish or repel them. Stewardship needs serious study.**

There is a current attitudinal shift at the corporate and foundational level, with renewed interest in solving important societal issues. All of the above is geared to take advantage of that shift by "packaging" one major necessary direction in Tahoe – this issue will be submitted as a separate finding, with recommendations commensurate with new societal directions. . .

Recommendation

- **Encourage one focused, yet overarching area, in this case the Lake Tahoe Basin, to be a 'living, learning laboratory' and agency of change, whose results could be shared with the Western Governors' Association.**

  By beginning a process of resolving continued hypofunctional issues of continually deteriorating forest health issues with one systemic project (Lake Tahoe) with overarching lessons.

  There is already a significant 'head-start' of agency collaboration in the Basin, but catastrophic fire danger continues, due to inherent off-site accountability.

- **In terms of leverage for the Commissions' recommendation for a concerted effort like this: it is easily explained in the topography: the Angora Fire was essentially the size of one Basin watershed, out of 60+ in approximately 200,000 acres. Therefore it can be said that the forest focus is 3100 acres within 200,000 acres (Tahoe Basin), within 24,000,000 acres (CA), within 300,000,00 acres (composite of Federal management), which makes Lake Tahoe an adequate microcosm to use as a focal point for overall community building and forest health. The ratio (in 000's) becomes:**

3

200

24,000

300,000

To reiterate:

The Tahoe Basin should become a focus & forum of forest health

Impacts of Implementation: Analysis of Impacts

- ☐ Cost: Offsetting costs of fire-fighting with transfer of embodied energy
- ☐ Funding source(s): Shift from ever-increasing 'emergency' funding to 'proportional' long-term preventive mechanisms, both public and private
- ☐ Staffing:Combination, until adequate 'time and motion' can be determined
- ☐ Existing regulations and/or laws: Change as appropriate

Analysis of impacts on the following factors:

- ☐ Operational: Mobilize resources on 'as needed' by seasonal availability, program parameters, 'degree of difficulty', on horizontal/vertical axis, and augment through, for example, eco-tourism and volunteer levels
- ☐ Social: "Living, learning laboratory" educates and orients to eco-knowledge
- ☐ Political: Non-partisan, socio-economic, sustainable economic development
- ☐ Policy: Consolidate as 'State-of-the-Art' use, consistent with societal needs
- ☐ Health & Safety: *Safety first*, with appropriate indemnification and training
- ☐ Environmental: Assurance program with higher-than-usual standards
- ☐ Interagency: **Proud Participants** Advocate the best sustainability principles, while eliminating redundancies that are not appropriate to 'checks and balances'

This F & R consolidates a lot of the issues that are 'part and parcel' to the vast list compiled; it is now recognized that major missing ingredients towards mitigating "paralysis-by-analysis" are from essentially two categories: (1) funding on a regular basis through commitment, and (2) the lack of political will, due to concerns about (1) . . . This results in more and more of a 'revolving door' approach, as the same issues get brought up again and again without adequate resolution.

That is where we find ourselves today. . . needing to put some substance into ideas of change

This F & R is attempting to introduce some pragmatic vision into the process, so that individual interests are covered, but that environmental realities be the driving force. The submitter has been active, albeit 'quiet', in these Tahoe issues for over a decade, including work and travel to various Regions of the Forest Service, work and attendance at conferences around the United States, and considerable work and conferences at DOE's National Renewable Energy Laboratory in Golden, CO.

Thank You for the opportunity to contribute to the well-being of my hometown . . .